

Application No. 09/800,312

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

1. (Currently Amended) ~~Method~~ A method for processing radio signals of a plurality of radiocommunication standards occupying a wide band of frequencies, ~~characterized in that it comprises the following steps comprising:~~

~~a wide band analysis step for~~ acquiring information concerning the radio signals contained in said wide band of frequencies and selecting a suitable narrow band processing for demodulating said radio signals in a wide band analysis phase, and

~~a step for the narrow band processing~~ processing of said radio signals contained in said wide band of frequencies ~~[[so as]]~~ to demodulate said radio signals in a narrow band processing phase ~~[[them]]~~

said wide band analysis phase comprising the step of looking for at least one channel containing radio signals able to be demodulated in said narrow band processing step, among channels of said radiocommunication standards.

2. (Canceled).

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3. (Currently Amended) The method ~~Method~~ according to claim 1, ~~characterised in that~~ wherein the wide band analysis ~~step consists~~ phase further comprises the step of acquiring information for identifying the radiocommunication standard associated with each of said radio signals contained in said wide band of frequencies.

4. (Currently Amended) The method ~~Method~~ according to claim 3, ~~characterised in that~~ wherein the wide band analysis ~~step consists~~ phase further comprises the step of looking for ~~[[the]]~~ a carrier frequency and/or ~~[[the]]~~ a band width of the radio signals contained in said wide band of frequencies.

5. (Currently Amended) The method ~~Method~~ according to claim 3, ~~characterised in that~~ wherein the wide band analysis ~~[[step]]~~ phase further consists further comprises the step of looking for a ~~[[the]]~~ cycle frequency and/or a type of modulation of the radio signals contained in said wide band of frequencies.

6. (Currently Amended) The method ~~Method~~ according to claim 3, ~~characterised in that~~ wherein the wide band analysis ~~[[step]]~~ phase further comprises the ~~[[a]]~~ steps ~~for the~~ of digital/analog conversion of the radio signals of said wide band of frequencies, and a ~~step for the~~ digitally processing ~~[[of the]]~~ resultant digital signals ~~[[so as]]~~ to obtain said information concerning the radiocommunication standard of said radio signals.

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7. (Currently Amended) The method ~~Method~~ according to claim 1, ~~characterised in that, for~~
~~each radio signal contained in said wide band of frequencies, wherein~~ the narrow band
processing ~~[[step]]~~ phase further comprises the ~~[[a]]~~ steps ~~[[for]]~~ of extracting ~~[[said]]~~ each radio
signal contained in said wide band of frequencies, and ~~a step for demodulating each of said~~
extracted radio ~~signal~~ signals.

8. (Currently Amended) The method ~~Method~~ according to claim 7, ~~characterised in that~~
wherein the step ~~[[for]]~~ of extracting each of said radio signal comprises ~~is effected by an analog~~
filtering of the wide band of frequencies when the radiocommunication standard of said radio
signal has a maximum peak power greater than a threshold value.

9. (Currently Amended) The method ~~Method~~ according to claim 7, ~~characterised in that~~
wherein the radio signal extraction step comprises ~~is effected by a digital filtering of the analysed~~
analyzed radio signals when the radiocommunication standard of said radio signal has a
maximum peak power lower than a threshold value.

10. (Currently Amended) The method ~~Method~~ according to claim 8, ~~characterised in that~~
wherein said threshold value depends on the resolution of the digital signals at the end of the step
~~for the~~ of analog/digital conversion of said wide band analysis ~~[[step]]~~ phase.

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11. (Currently Amended) ~~The method~~ Method according to claim 1, ~~characterised in that~~
~~wherein~~ the wide band of frequencies is ~~analysed~~ analyzed per portion of several tens of
megahertz.

12. (Currently Amended) ~~The method~~ Method according to claim 1, ~~characterised in that~~
~~wherein~~ the wide band of frequencies is ~~analysed~~ analyzed standard by standard.

13. (Currently Amended) ~~Software~~ A software radio receiving unit ~~able to process the~~ for
processing radio signals of a plurality of radiocommunication standards occupying a wide band
of frequencies, ~~characterised in that it comprises~~ comprising:

wide band analysis means for acquiring information concerning the radio signals
contained in said wide band of frequencies and selecting a narrow band processing of said radio
signals according to the information acquired by said wide band analysis means, and

narrow band processing means for demodulating said radio signals contained in said wide
band of frequencies,

said wide band analysis means carrying out a search for at least one channel containing
radio signals among channels of the radiocommunication standards.

14. (Canceled).

15. (Currently Amended) ~~Receiving~~ The receiving unit according to claim 13, ~~characterised~~
~~in that~~ wherein the wide band analysis means carrying out a search for information ~~[[are]]~~ able to

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identify the radiocommunication standard associated with each of said radio signals contained in said wide band of frequencies.

16. (Currently Amended) ~~Receiving~~ The receiving unit according to claim 15, ~~characterised in that~~ wherein the wide band analysis means ~~[[look]]~~ carries out a search for ~~[[the]]~~ a carrier frequency and/or ~~[[the]]~~ a band width of the radio signals contained in said wide band of frequencies.

17. (Currently Amended) ~~Receiving~~ The receiving unit according to claim 15, ~~characterised in that~~ wherein the wide band analysis means ~~in addition look~~ carries out a search for ~~a~~ [[the]] cycle frequency and/or ~~[[the]]~~ a modulation type of the radio signals contained in said wide band of frequencies.

18. (Currently Amended) ~~Receiving~~ The receiving unit according to claim 13, ~~characterised in that~~ wherein the narrow band processing means comprise means for extracting the radio signals contained in said wide band of frequencies and means for demodulating said extracted signals.

19. (Currently Amended) ~~Receiving~~ The receiving unit according to claim 13, ~~characterised in that~~ wherein the wide band analysis means comprise a first filtering block ~~[[whose]]~~ having a pass-band ~~corresponds~~ corresponding to a band of frequencies to be analysed analyzed, a first amplifier for adjusting ~~a~~ a power level of the signals present in said band of frequencies to be

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~~analysed~~ analyzed, a first digital/analog converter for converting said power-adjusted signals, and a first digital processing processor for ~~analyzing the~~ analyzing resultant digital signals and deducing ~~from the~~ the radiocommunication standard of said ~~analysed~~ analyzed signals.

20. (Currently Amended) ~~Receiving~~ The receiving unit according to claim ~~[[18]]~~ 19, ~~characterised in that~~ wherein the pass-band of said first filtering block is position- and size-adjustable.

21. (Currently Amended) ~~Receiving~~ The receiving unit according to claim ~~[[13]]~~ 19, ~~characterised in that~~ wherein the narrow band processing means comprise a second digital processor for extracting the radio signals via digital filtering and a digital demodulation of said extracted signals.

22. (Currently Amended) ~~Receiving~~ The receiving unit according to claim 21, ~~characterised in that~~ wherein the first and second digital processors are one ~~and the same~~ digital processor.

23. (Currently Amended) ~~Receiving~~ The receiving unit according to claim ~~[[13]]~~ 19, ~~characterised in that~~ wherein the narrow band processing means comprise a second filtering block ~~[[whose]]~~ having a pass-band ~~[[is]]~~ adjusted according to the size and position of the channel to be selected, a second amplifier for adjusting the power level of the radio signals to be demodulated, a second analog/digital converter and a second digital processing processor for demodulating said resultant digital signals.

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24. (Currently Amended) ~~Receiving~~ The receiving unit according to claim 23, ~~characterized in that wherein~~ the first and second filtering blocks, the first and second amplifiers, the first and second analog/digital converters, and the first and second digital processing processors are physically respectively one ~~and the same~~ filtering block, one ~~and the same~~ amplifier, one ~~and the same~~ analog/digital converter, and one ~~and the same~~ digital processing processor.

25. (Currently Amended) ~~Receiving~~ The receiving unit according to claim ~~[[19]]~~ 13, ~~characterised in that it further comprises~~ comprising upstream of the wide band analysis means and narrow band processing means a frequency transposition device for transposing the radio signals to an intermediate frequency.

26. (Currently Amended) ~~Receiving~~ The receiving unit according to claim ~~[[19]]~~ 13, ~~characterised in that wherein~~ the narrow band processing means further comprise a frequency transposition device for transposing into a base band or to an extremely low intermediate frequency the signals to be demodulated ~~[[into a]]~~ by said narrow band processing means.

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